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ORIGINAL LECTURES.

CLINICAL LECTURE ON HEREDITARY AND CONGENITAL SYPHILIS.

BY DR. ALOIS MONTI,

Vienna.

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HEREDITARY syphilis, which formerly was a comparatively rare disease, occurring about once in a thousand cases, has in the last years increased enormously in frequency, so that in Vienna the proportion has risen to one in a hundred cases of disease in children.

Cutaneous syphilis develops in three forms,—syphilis maculosa, syphilis papulosa, and syphilis pustulosa.

Syphilis maculosa is not a disease of intra-uterine life, but makes its appearance within the first, second, or third month of extra-uterine life. Before this, its coming may be preceded by a peculiar cachexia, presenting a cadaveric appearance, with pale, dull skin, which is followed by pigment-spots the size of a lentil, coming out first upon the glabella, the eyebrows, the face, and rarely upon the trunk. Then the fully-developed maculæ appear, of a red coppery color and somewhat elevated above the surface. Usually the surface is attacked in different parts successively, and not all at once.

The metamorphoses of maculæ are paling, formation of scales, psoriasis, which is usually more strongly marked on certain parts than on others, *i.e.*, the palms of the hands, soles of feet, the face and skin over joints, and thus after fourteen days, or it may be three or four weeks, the maculæ disappear. Condylomata may be formed where there is present a secretion, on the face, lips, the folds, and the genitals. The moisture macerates the epidermis, and an inflammation of the cutis follows. Whenever in children you find such condylomata at the angles of the mouth, the chin, the genitals, the inguinal folds, or about the anus, you may be quite sure you have not to do with a new disease, but a relapse of one already existing. As a sequel of maculæ may occur considerable indurations, dependent upon some mechanical irritation, which may last months. The macular form of syphilis is the least dangerous, and furnishes the greatest percentage of cures.

Syphilis papulosa.—This develops in intra-uterine life or in the first few days after birth. It appears oftenest on those parts where the skin lies close to the bones, the extensor side of joints, the ankle, knee, hand, elbow, and back, though it may appear on other parts. The arrangement of the papulæ is usually circular or oval: they are elevated above the surrounding surface, have a pale color and an extended border. This form may be mixed with the macular. Its metamorphoses are the same as those of the latter, but usually last longer.

Syphilis pustulosa in the majority of cases develops in intra-uterine life. It is the gravest form, lasts longest, and has the most frequent relapses. It is accompanied with a marked cachexia, and the subjects of it rarely live long. It often goes over into pemphigus, or varicella syphilitica. It may be mixed with syphilis papulosa, but rarely with syphilis maculosa. Its metamorphoses are the bursting of the pustules, with excoriation of the skin, or they may dry into a crust, beneath which pus accumulates and syphilitic ulcers form, or blood may be extravasated in them, and a hemorrhagic pemphigus occur, which is a very severe form.

When hereditary syphilis attacks the mucous membrane, it usually selects the nasal cavity earliest and makes its outset in the first few days after birth, or a child may even come into the world with a coryza. The mucous membrane is dry, and the child breathes through an open mouth. Later a purulent discharge, which may become ichorous, is set up. Papules or ulcers may appear; but I have seldom seen a destruction of the bones.

When the lips are attacked it is usually at the angles of the mouth, or where skin and mucous membrane join. Here may appear maculæ, papulæ, condylomata, or ulcers.

The mucous membrane of the soft and hard palates and of the pharynx are subject to similar forms. So too the larynx, but more rarely. I have seen two cases of this kind which arose in intra-uterine life. Finally the mucous membrane of the vulva and anus belong in this list. In general,

whenever we find the exhibitions of hereditary syphilis upon the mucous membranes we may look upon it as a relapse following an earlier cutaneous form.

Syphilis attacks the lymphatic and glandular systems. A tumor of the spleen is a constant phase. It can usually be found at birth. The greater the cachexia in the child the larger will the spleen be; and it diminishes in size as the condition of the child improves. The affections of the liver are relatively infrequent, but occur in intra-uterine life.

The bones are not usually very markedly affected. They may be thickened in their epiphyses or their diaphyses.

The course of hereditary syphilis is chronic. When an eruption is cured, one must not think the disease is at an end. But it *can be cured.* I have seen such cases, and those who deny their possibility speak from want of experience.

One of the sequelæ of hereditary syphilis is rachitis. I have never seen a case where rachitis did not follow it. Another is hydrocephalus chronicus, which with certain cachexiæ is almost unexceptional. Another is scrofulosis. When one sees chronic periostitis on the long or flat bones, symmetrically distributed on both sides of the body, one should most strongly suspect that syphilis is the cause. Furunculus often follows a pale eruption, and is more painful than dangerous. A peculiar ozæna, as an exhibition of syphilis, may be hard to diagnose from that caused by scrofulosis.

Death, and that very sudden, may be the end of hereditary syphilis. The possibility of this must ever be borne in mind, and parents should be warned of it in every case. Such an issue is most frequent in anæmic or cachectic cases, and its immediate cause is usually œdema of the meninges or of the lungs.

Prognosis.—There are many factors affecting this. The time of the appearance of syphilis is one, for in cases of intra-uterine development it is most fatal, and the later it comes on the more favorable, relatively, is the prognosis. The form is another. Thus, in pustular syphilis it is the most unfavorable, in papular less so, and in macular it is comparatively favorable. The manner of living and the food of the child are points of great moment. Artificially-fed children all die, and only when a nurse of unexceptionable quality can be obtained may one look for a cure. Complications may of course exercise a very unfavorable influence upon the issue. Parents should be warned to let no apparently trifling event go unnoticed, and to submit their children regularly to the supervision of a physician, and this not less than once a month for two years. With such good food, such scrupulous watching, and suitably applied remedies, hereditary syphilis can be cured, but not otherwise.

Therapeutics.—It must be conceded that there are cases where, when every other condition of food and care is fulfilled, medicinal treatment is not required; but these are exceptional. In most cases much depends upon the remedies chosen and their method of application.

The inunction cure is bad for new-born children, as it irritates the skin and may convey too much mercury, thus causing anæmia, which is the little patient's worst enemy. Statistics prove this to be a fact. But it may be used where a rapid action is demanded, as in laryngostenosis, in older children, but not for those under six months of age. I usually prescribe unguenti cinerei,* 3 to 6 grammes, divided into ten parts, and have one or two parts rubbed in daily, according to the age of the child. Salivation, so much feared in adults, is rare in children. I have had half an ounce rubbed in a child without salivation.

Calomel, once used for almost every conceivable children's disease, has been much less employed in more enlightened times. For myself, there are few cases in which I think it applicable. In hereditary syphilis, however, where there is no catarrh of the intestines, I think it finds its most appropriate place. It should be given in very small doses, and never alone. Iron should be joined with it, to combat the anæmia which the mercury tends to bring about. I prescribe—

℞ Hydrargyri chloridi mitis, 0.10 grm.
Ferri lactatis, 0.20 gramme.
Sacchari albi, 3 grammes.
Divide in pulveres tres.

Of this I order one to three powders a day, according to the age of the child.

These give the children green stools and sometimes colic; but this does not hurt them, for it is balanced by the improvement of their rest at night. The medicine

* The ung. hydrargyri of the Austrian Pharmacopœia, which is of the strength of *one part in three.*

should be continued until the eruption is pale or has disappeared. If, however, symptoms of anæmia appear, it should be discontinued instantly and the child put on iron,—say the lactate or the saccharated carbonate.

Corrosive sublimate should never be given to children internally, but used in baths it is very valuable. Especially when added to the calomel, as suggested, does it act promptly and safely. I order—

℞ Hydrargyri chloridi corrosivi, 1 grm.
Ammonii chloridi, 6 grammes.
Aquæ fontis, 200 grammes.—M.
To be added to two or three baths.

Thus with ten baths and ten powders one usually sees an eruption disappear.

Corrosive sublimate as a subcutaneous injection is not as well borne by children as by adults. Indurations and abscesses are more apt to occur; and, besides, mothers object to seeing their children "*stuck*," as they call it, every day. I use it only in cases where a quiet and unobtrusive line of treatment is required to preserve the peace of a family,—where, for example, one parent may be conscious of guilt and desire that the other shall not discover it.

As to dose, I have a solution by which I divide 7 centigrammes in ten syringefuls and give a quarter or a half of one, watching how it is borne.

The albuminate or peptone of mercury is better for this purpose than the bichloride.

Iodine has been used in this disease, but, while it may effect good results, its action is too slow.

For the last three years I have used with the greatest success the ferri iodatum saccharatum.* It has never affected the nutrition of my patients, and they look fresh and blooming after taking it continuously for considerable periods.

I prescribe—

℞ Ferri iodati saccharati, 0.20 to 0.40 grm.
Sacchari albi, 3 grammes.
Divide in pulveres decem.

Of these I give three to five powders a day, and continue their use until the tumor of the spleen and the anæmia have disappeared. The peculiar advantages of this remedy are that it can be given for a long time without ill results, under its use relapses are less frequent, and when they do occur they are of a lighter grade.

The protiodide of mercury, in doses of one centigramme, is sometimes used with good results; but many children do not bear it at all well.

Certain phases of congenital syphilis demand local treatment. For example, the serious obstruction to nasal respiration must be combated by cleansing and clearing of the cavity with injections.

Ulcers I treat with a salve of red precipitate, prescribing—

℞ Hydrargyri precipitat. rubri, 0.50 grm.
Unguenti emollientis, 10 grms.—M.
Ft. unguentum.

For condylomata, on the genitals or face, I order—

℞ Aquæ calcis, 50 grammes.
Hydrargyri chloridi corrosivi, 0.10 gramme.—M.

Charpie dipped in this is to be laid upon the condylomata and renewed three times a day. But a better treatment I believe to be dusting them with calomel and painting with chlorina liquida.† One may also use the red precipitate salve of double the strength already named.

Excoriations I pencil three times daily with the following:

℞ Hydrargyri chloridi corrosivi, 0.05 to 0.10 gramme.
Mucilaginis gummi arabici, 50 grms.

As already stated, one of the most important points in the treatment of infantile syphilis is that of food. In regard to this there are certain fundamental principles which must be observed. *If the child is less than a year old it must have the natural food, woman's milk.* If this cannot be secured, death is almost inevitable. It is often very difficult to secure. The mother being syphilitic, her milk will be poor, and yet it is better than artificial food. In such cases the best we can do is to treat the mother for her disease at the same time we are treating the child. It has been of late asserted that there is no danger of a child communicating syphilis to a healthy nurse, provided there are no excoriations on her nipples, or local exhibitions of syphilis in or about the mouth of the infant. This is true, and in a hospital where child and nurse are under daily supervision it is possible to have the plan pursued without infection. It has been and is done in a St. Petersburg hospital. But in private practice it presents almost insuperable diffi-

* This contains one part ferri iodidi in five parts.

† This is the aqua chlorinii of the Austrian Pharmacopœia.

culties; in view of which I make it an invariable rule, under such circumstances, to confide to the nurse the diagnosis of syphilis. I tell her that if she carefully watches the condition of her breasts and the child's mouth there is comparatively little danger; that at the same time it is possible she may contract the disease, and that if contracted it *may be cured*, but that it *may prove incurable*. In the face of this there are women who for a certain amount of money will take the risks; but a physician pursuing such a course has discharged his duty fully, and cannot be blamed, nor blame himself, if afterwards the worst happens.

If a child cannot obtain natural food, recourse must be had to artificial. Of these *starches must be avoided*, and the various articles containing starch are unsuitable. The only substitute that can be entertained is cow's milk, which must be given under the most careful rules governing its use in general. To this veal broths may be added after the first few months are passed.

Even if a child is at the breast we may often, by the third or fifth month, advantageously supplement this with good soups, and, by the sixth or eighth month, with meat. The point which must never be lost sight of is the nutrition of the subjects of infantile syphilis.

The treatment of the sequelæ of syphilis is to be conducted on most careful general principles. Furunculi must be opened early. Rachitis I treat with an invigorating diet, salt baths, iron baths, and cod-liver oil. In ozæna, lymphatic-glandular enlargement, periostitis, I always use the syrupus ferri iodidi and continue it for a long while, until the child looks well.

Such are, in brief, the most important points in the management of children with congenital or hereditary syphilis which now occur to me.

TREATMENT OF CHOREA (*The Practitioner*, February, 1877).—M. Guérin, of Paris, at the conclusion of a pamphlet on chorea, makes the following observations. If consulted at the commencement of an attack of chorea, when it is, so to speak, in the acute stage, dry cupping should be applied to the vertebral column. Attention should then of course be paid to the cause; and finally chloral, bromide of potassium, arseniate of soda, sulphur baths, and gymnastic exercise will often serve to complete the cure.

ORIGINAL COMMUNICATIONS.

HAVE ORGANIC NERVOUS DISEASES THEIR ORIGIN AND FREQUENCY IN OUR AMERICAN LIFE?

BY TRAILL GREEN, M.D.

Read before the Medical Society of Northampton County, Pa., at its meeting at Bath, August 23, 1876.

So much has been written on the strain upon the nervous system in our American life that we may now ask the question whether there is any foundation for the opinion held by many medical and by non-medical men, viz., that the hurry in and exclusive devotion to business have produced serious nervous diseases of an organic nature. It has been for some time past a common belief that apoplexy and paralysis are much more common than they were in former years, and that those who break down suddenly in the midst of activity, and often quite early in life, do so because of excessive brain-work.

We think the past generation of men in our own and other lands were as earnestly and constantly devoted to business as the present, and did not believe that they were injured thereby. Dr. John Mason Good is an example of one in professional life, and in the pursuit of literature, who labored incessantly, and died aged sixty-two of an inflammatory affection (cystitis), with his nervous system in a healthy state. His maxim was like that of Dr. E. D. Clark, who was also eminent for his indefatigable application: "I have lived to know the great secret of human happiness is this: Never suffer your energies to stagnate. The old adage of 'too many irons in the fire' conveys an abominable lie. You cannot have too many: poker, tongs, and all,—keep them all going." Whatever may have happened to the "poker and tongs," it is evident these men did not believe that they who handled them received any injury.

One so eminent as was Dr. Good as a physician in active practice, so distinguished also as a philosopher, scholar, and linguist, must have been busily occupied to reach a position so exalted in these various pursuits.

John Wesley is a notable example of constant application to mental pursuits, and of great energy in labor. He wrote in his diary on his eighty-sixth birthday as follows: "How little have I suffered yet by

the rush of numerous years! I am not conscious of any decay in writing sermons, which I do as readily, and I believe as correctly, as ever." Many of his generation, as well as of the present, were constantly devoted to mental and physical employments, whose nervous system remained free from disease to a very advanced age.

We name one from the other learned profession, the late Horace Binney. Judge Strong, in his discourse illustrative of the life and character of Mr. Binney, says, "He was immersed all his life in a flood of occupations, and he lived with unimpaired mental faculties, and generally in the enjoyment of good health." He died in the ninety-sixth year of his age. Dr. Beard fixes the average age of five hundred brain-workers to be sixty-four years.

I have long doubted whether our profession holds correct views of the origin of apoplexy, palsy, and softening of the brain, and I doubt whether such cases are now more numerous than they have been in the past, in proportion to the population. I was impressed many years ago in reading in the Gospels and Acts of the Apostles, by the frequency of paralysis among a quiet and doubtless for the most part an agricultural and pastoral people.

History alone can lead us to the truth with reference to the occurrence of these diseases in early times. We read, Matthew iv. 24, that they brought to Jesus those that were lunatic, and those that had the palsy. These lunatics were not persons possessed of the devil, for such are mentioned in the same verse. Philip found "*many* taken with palsies" at Samaria. Single cases are mentioned, Matt. ix. 2, Mark ii. 3. The servant of the centurion at Capernaum had palsy, Matt. viii. 6. The case of Eneas was a chronic one, for he had kept his bed for eight years, "sick of the palsy," Acts ix. 33.

Lunacy and paralysis, we see then, were quite common among the Hebrews in Palestine in the time of the Saviour and the apostles.

For a period of fifteen hundred years we have abundant evidence in medical works of the occurrence of these diseases.

The Aphorisms of Hippocrates (B.C. 460) show that he must have met with many cases of apoplexy. Aph. vi. 57: Persons are most subject to apoplexy between the ages of forty and sixty. That it is a disease of old persons: Aph. iii. 31. That it occurs most frequently in winter: Aph. iii. 23. It is impossible to remove a strong attack of apoplexy, and not easy to remove weak attacks: Aph. ii. 42.

We may be somewhat surprised to find in his Epidemics (book 1, vol. i. 361, 362, Sydenham Soc. ed.), after giving an account of the meteorological condition of Thasus in the summer, autumn, and winter, that he says, "Paraplegia set in, and attacked many, and some died speedily; and otherwise the disease prevailed much in an epidemical form, but persons remained free from all other diseases."

Galen (A.D. 131), in his Commentary, remarks that the attacks of paralysis were brought on by the cold winds of the winter succeeding to a humid autumn. We have never had an epidemic like this.

Aretæus, who lived in the second century, saw enough of apoplexy and paralysis to qualify himself to write clearly upon their nature and treatment. His remarks on blood-letting are worthy of attention in these days. He says, "It is an assistance in the treatment, provided there be no mistake as to quantity; but the amount is difficult to determine, since if you take too much you dispatch the patient at once. But, if the quantity be inferior to the cause, you do little good with this the great remedy, for the cause still remains." His remarks on cupping, wet and dry, and on purgatives in apoplexy, are equally good. He was also familiar with paralysis, and gives six causes of this disease, "a wound, a blow, exposure to cold, indigestion, venery, and intoxication." He mentions likewise "the vehement affections of the soul, astonishment, fear, dejection of spirits, and, in children, frights."

We may refer also to Galen, to Aetius, A.D. 550, and to Paulus Ægineta, middle of seventh century, whose descriptions of these diseases prove their professional acquaintance with them to have been equal to that of physicians of these times, if we except the better knowledge of their pathology which we have.

The commentator on the works of Paulus Ægineta, Francis Adams, says, "Avicenna treated the subject of apoplexy and paralysis in a very masterly manner.

"It is impossible to admire too much the brief but comprehensive account of apoplexy and paralysis given by Aretæus. He states decidedly that there is sometimes a loss of motion alone, and sometimes of

sensibility; the reason of which he supposes to be, that the sensatory and motory nerves are distinct from one another. This is the germ of the theory fully expanded afterwards by Galen. It appears, indeed, from the anatomical works of Ruffus, that the famous Erasistratus had attempted a similar classification of the nerves. Galen, however, has the merit of fully establishing the truth of the theory; and all subsequent writers on physiology stated it in nearly the same terms that he does, until ancient authority in medicine and its cognate sciences came to be despised. Aretæus states it as a general rule, that when one side of the brain is affected, the opposite side of the body is paralyzed; but when the disorder is in the spinal marrow, that the affection of the spine and the paralysis are on the same side. This arises, he supposes, from the decussation of the cerebral nerves; and this explanation must be admitted even now to be tolerably correct. The causes of paralysis, as stated by him, are falls, blows, cold, indigestion, debauchery, intoxication, and violent emotions of the mind. His treatment is as follows: he inculcates, in the strongest terms, that the great remedy for apoplexy is venesection; and that the only difficulty, in general, is to determine the extent to which it is to be carried. He forbids the operation, however, when the senses are oppressed with much cold and torpor. Cœlius Aurelianus enumerates nearly the same causes of apoplexy and paralysis as Aretæus, namely, excessive heat, cold, indigestion, debauchery, and injuries of the brain. The season of winter is justly said to predispose to the disease. It is seated, he says, principally in the head. His treatment is nearly the same as that of the followers of Hippocrates and Galen, namely, emollient applications to the head and limbs, venesection, abstinence, clysters, cupping the back part of the head, and the bath of oil. Of paralysis he treats at greater length, and with much precision and judgment. He mentions nearly the same causes of it as of apoplexy, and remarks that it produces loss of sensibility, or of motion, or of both. He observes, in particular, of the tongue, that it may retain the power of deglutition although that of speech be lost. He details all the phenomena of partial paralysis with surprising accuracy; and, at the present day, we do not know a work on the subject that contains so much information.

"Rhazes states decidedly that the skin of paralytics may retain its sensibility, although the muscular motion be lost. In a word, he maintains that the nerves of sensibility and motion may be affected separately. He remarks, however, that a part can scarcely retain its power of motion when the sensibility is entirely gone. He says that he had known several cases of paralysis cured by natural diarrhœa. His general remedies are bleeding, purging, and rubefacient applications."—Francis Adams, Paulus Ægineta, vol. i. 398, 401.

The Aphorisms of Hippocrates, so true at the present day, could not have been written by one who had not had personal knowledge of a large number of cases of apoplexy and paralysis, a larger number, we think, than falls within the observation of the average practitioner of the present day. The writings of those who succeeded him prove that they also were quite familiar with these diseases.

Rhazes, A.D. 900, was familiar with the disease among his Arabian countrymen.

To enumerate all who have written upon these diseases would be to name all who were eminent in our profession before the Christian era, and for all the centuries following, down to the present time.

Theophrastus, Aretæus, Aetius, Oribasius, Alexander, Actuarius, Cœlius Aurelianus, Celsus, Nonus, Serapion, Haly Abbas, and De Haen.

With reference to the prevalence of these diseases in recent times I am happy to find very satisfactory evidence in the valuable mortuary statistics recently published by the New York Mutual Life-Insurance Company. The experience of the company extends through a period of thirty-one years, from 1843 to 1874.

"The percentage of apoplexy on the total mortality is 5.88." (Page 37.) This is less than the percentage of deaths from accidents and injuries, which is 6.83." (Page 43.)

"The deaths from diseases of the nervous system were eight hundred and forty-nine, embraced principally under apoplexy, paralysis, and softening, congestion, and diseases of brain. We believe these terms are used synonymously by many physicians, and should, therefore, be calculated together in one general table. However, we have as yet considered them apart in most cases. This class of diseases *appears* to have increased somewhat, though not

materially, in number during the last ten years, probably because more elderly persons are insured than formerly." (Page 13.)

The percentage on the whole mortality of other diseases of the brain and of the nervous system is 10.38, made as follows:

Congestion of brain . . .	2.11
Paralysis, softening and diseases of brain	5.38
Epilepsy and convulsions . .	.61
Other diseases of the nervous system	2.28
	10.38

We may deduct from this table the cases of congestion of the brain, epilepsy, and convulsions, and other diseases of the nervous system: we then have the percentage on the whole mortality of paralysis, softening and diseases of the brain 5.38. Adding the percentage of epilepsy, 5.88, the percentage of the diseases under consideration is 11.26. This compares favorably with diseases of the lungs, the percentage of which is 12.40, and, adding consumptive cases, 17.61, the whole percentage is 30.01.

The percentage of the diseases of the digestive organs is 9.34. If we add to these the cases of dysentery, diarrhœa, and cholera, we find the percentage of these diseases on the whole mortality 13.18.

The percentage of zymotic disease is 18.16. The reporter states (page 13) that apoplexy gives the largest percentage among the Scotch, and the smallest among the Irish, and the same holds good for diseases of the nervous system in general.

The percentage of Scotch policy-holders is	13.98
German	8.58
Natives of the United States . .	5.49
Irish	2.94

Further, the statistics are arranged and reported by Dr. G. S. Winston and E. J. Marsh, who have had experience in work of this kind.

Mr. W. H. C. Bartlett, the actuary of the company, whose report accompanies that of the physician, submitted the work in all its details to the critical examination of a person whose eminent mathematical attainments, intimate acquaintance with vital statistics, and practical knowledge of life-insurance would detect whatever of error in principle or inaccuracy of deduction it might contain.

Prof. C. F. McCay, LL.D., was accordingly selected, and reported, "I find the report in perfect accord with my own views in regard to the manner of treating this important matter, and fully concur in the deductions drawn therefrom."

THE PREVALENCE OF NERVOUS DISEASES.

The following is taken from the report of a paper read by Dr. Althaus before the Royal Medical and Chirurgical Society of London, January 25, as given in the *Medical Times and Gazette*, February 12.

The paper was based on an analysis of the vital statistics contained in the British Registrar-General's reports from 1838 to 1871. The points studied by the author were the frequency of nervous diseases, whether or not they are on the increase, their relations as to race, sex, age, and locality. As to the first of these, he found that for six successive periods of five years each, the death-rate from all forms of nervous diseases had varied only between 26 and 28 to each 10,000 of the population. Taking, however, the number of deaths from nervous diseases as compared with those from all other causes, we find a still more constant ratio, the average for thirty years being 12.26 of the whole. This average clearly shows that for thirty years (a period in which so much has been said of the increase of these diseases) there has been no increase of nervous diseases in England. We give the remainder of the article, though it does not apply to the point in discussion, but because it gives valuable statistics of other nervous diseases.

As compared with the relative mortality from other disorders, he found that nervous diseases occupied a fourth place among the maladies destructive to human life; zymotic affections heading the list with 22.90 per cent.; next, tubercular disorders, with 15.94 per cent.; followed closely by respiratory troubles, with 14.16.

As regards the constancy of the ratio of nervous diseases to other affections, and their relative ratio one to another, it was found that there had been an increase in all diseases of the brain and spinal cord, and their membranes, with the exception of hydrocephalus, and also of apoplexy and paralysis. Delirium tremens appeared to be decreasing, while an increase was perceptible for chorea and tetanus. Epilepsy had decidedly diminished for the past ten years, while the mortality from insanity was increasing. Infantile eclampsia showed the greatest decrease, its mortality having diminished 18 per cent. in thirty years,

but the increase in other nervous diseases occurring at the same time had left their proportion of the whole mortality unchanged. They could be ranged, according to their fatality, as follows: convulsions, 48.70; apoplexy, 16.19; paralysis, 15.96; disease, etc., 6.98; cephalitis (including all inflammatory diseases of the brain and cord and their membranes), 6.64; epilepsy, 3.79; insanity, 1.00; delirium tremens, 0.83; tetanus, 0.26; and chorea, 0.10.

The investigations seemed to show that the common idea that these affections are more common among inhabitants of towns than among dwellers in rural districts is erroneous. The extraordinary prevalence of nervous diseases in Wales could not well be explained. Dr. Althaus suggests that the Celtic race is less resistant to such influence than the Saxon.

As regards the influence of sex, it was found that the mortality from these disorders was always greatest among males, the ratio for a quarter of a century being 12.94 against 11.62. The males died more from cephalitis, delirium tremens, infantile convulsions, tetanus, epilepsy, and disease of the brain, while chorea and insanity were more frequent in females, and apoplexy and paralysis were about equally fatal to both sexes. The entire percentage of deaths amounted to 54 for males and 46 for females; thus showing an excess of 8 per cent. for males.

The relation of age to the prevalence of these affections is as follows: there is an immense maximum in the first year of life; then a rapid descent until four years of age, but still the mortality in the first lustrum is greater than that of all other periods taken together. From five to thirty years of age the fatality from nervous diseases is slight; at thirty-five there is a rise, which becomes large at sixty, and reaches its maximum at seventy. This maximum is, however, only one-tenth as great as that of infancy. The first maximum is due to convulsions, the second to apoplexy and paralysis.

The relative mortality to frequency of the different diseases was discussed with the following results: of insanity there were eighty-eight living cases to one death; the prevalence of cephalitis Dr. Althaus thought only slightly higher than its mortality; in paralysis the deaths were about one to twelve; chorea was fatal in about 1 per cent.; delirium tremens about 25 per cent.; in tetanus about one in three recovered; in epilepsy about 2 per cent. of cases were fatal. Hysteria, though very prevalent, was hardly ever fatal.

Dr. Althaus closed his paper with some remarks on the progress and prospects of therapeutics. He thought that we will be able in the future to considerably reduce the mortality of such diseases as convulsions, epilepsy, and tetanus. (*Journal of Nervous and Mental Diseases*, July, 1876, pp. 518, 519.)

Our own people, it appears, are less subject to apoplexy than emigrants from other lands, with the exception of the Irish.

The percentage of deaths from insanity on the whole mortality is 0.537.

It must be admitted that the "mortuary statistics" from which we have gathered the figures we have used in this report furnish important and reliable matter in vital statistics. The number of persons insured by the company which has furnished the statistics is 101,967. These are all carefully examined before a policy is granted; and the reports of deaths are obtained under the oath of the reporter. It will be seen, therefore, that we are made as sure of correct statistics as it is possible to be.

We subjoin a table of the condition and ages of patients of whom we have had knowledge, though all of them were not under our own care and treatment. They were met with in a population which has grown from six to ten thousand during the time of observation, and several of them occurred from two to seventy miles beyond this concentrated population, but they died here or were known personally to the reporter.

Of these cases twenty-two were palsy, nineteen apoplexy, and eight softening of brain. Thirty had reached, or passed beyond, the seventieth year, and in none could we discover as a cause of disease too great devotion to business, or any mental strain. We would rather conclude from all our observations that the withdrawing from business after great devotion to it frequently acts unfavorably,—a sudden stopping being more likely to give a great shock than motion continued moderately while the machinery is capable of motion.

Mr. Burton says, "Employment, which Galen calls 'Nature's physic,' is so essential to human happiness that indolence is considered the mother of misery," and, we think, very often of disease.

Table.

Occupation.	Ages.																								
	54	55	56	58	60	62	63	65	67	68	69	70	71	72	74	75	76	77	78	79	81	83	84	87	88	89	92
Editor															1												
Millers		1																	1								
Druggist				1																							
Justice of Peace														1													
Blacksmiths									1													1	1				
Lawyers											1						1										
Clerks								1		1																	
No occupation					1		1																				
Railroad watchman												1															
Cabinet-maker											1																
Quarryman												1															
Merchants	1											1															
Farmers										1				1													
Currier																								1			
Grocer								1																			
Boatmen			1				1																				
Laborer																1											
Females					2	1	2		1	2		3	1		2		3	1		1	1			1	1	1
	1	1	1	1	3	1	4	2	2	4	2	6	1	2	3	1	4	1	1	1	1	1	1	1	1	1	1

REPORT OF TWO CASES OF MEASLES.

BY E. L. B. GODFREY, M.D.,

Camden, N.J.

IT is generally conceded that an attack of measles renders the system ever afterwards insusceptible to its poison. A case, however, which will furnish an exception to this rule, has fallen under my observation, in a boy four years of age, who, having had a well-marked attack of the disease and communicated it to two other members of the family, was again attacked six weeks afterwards, the eruption reappearing in a much more marked and copious form than in the first attack, and the disease again passing through its regular course. The first attack was attended with an unusual severity of the catarrhal symptoms, which has generally been the case in the epidemic that has visited us; but the recovery was complete, so much so that the patient after his recovery was taken on a visit to the country. Four weeks after the attack, two other members of the family began to show manifestations of the disease. During their sickness our patient returned from his country visit, and was allowed to play in the room in which the other children were confined. About the time they had thoroughly convalesced from the disease, he sickened with pneumonia and was confined in the same room.

On the third day of the pneumonia, the eruption of measles reappeared in a much more marked and copious form, especially on the forehead, face, and extremities, pursued its ordinary course, modified the lung-trouble, and eventuated in recovery. The second attack was unquestionably due to the fact of the patient being subjected to the influence of the poison while the vital forces were in a depressed condition induced by the inflammation of the lungs, and thus rendered less able to resist the effects of the poison.

Through the kindness of Dr. Schenck, of this city, I have the privilege of mentioning a case met with in his practice, which will illustrate in a very marked degree the fact that types of different diseases may coexist in the system, but that the stronger will run its course before symptoms of the other manifest themselves. He vaccinated with animal virus a child which together with two other members of the family, as was ascertained after the vaccination, had been subjected to the influence of the poison of measles. The vaccination produced its proper effect, and was attended with a high degree of local inflammation and considerable fever. Five days after the vaccination the eruption of measles appeared, and in two of the children pursued its regular ordinary course, while in the one vaccinated the eruption only appeared on the lower extremities, from the knees to the ankles, and on the upper extremities, from the elbows to the wrists. The eruption disappeared after remaining the usual time. After the vaccination had

run its course, the eruption reappeared in a very marked form, being ushered in by convulsions, and pursued its regular course, save that the catarrhal symptoms were very slight.

ON THE VELOCITY OF NERVOUS ACTION.

BY B. F. LAUTENBACH, M.D.

WHEN Helmholtz, nearly thirty years since, measured the rapidity with which the contraction of the muscles followed an irritation of the nerve, considerable excitement was caused in the scientific world, as previously physiologists had been content with considering all nervous action to be produced by an ether. This "nervous ether" was said to act so rapidly when the nerve was irritated that the time which expired up to the contraction of the muscles was supposed to be unmeasurable.

This is really so as long as we depend on our unaided senses to measure the time; but these, as is well known, cannot determine even, relatively speaking, large differences of time, as is beautifully demonstrated in the familiar experiment where one of a rapidly revolving circle of pictures becomes distinctly visible and seemingly stationary when a flash of electrical light is passed through the room.

To Helmholtz belongs the credit of first determining the method by which the *latent time*, *i.e.*, the time which expires after the irritation, before the muscles begin to contract, could be measured. He made use of two currents, the one to measure the time and the other to irritate the nerve, which currents were made and broken at the same time by means of a mercury connection, and found that the conduction occurred in the *dead* sciatic nerve of the frog at the rate of 26.4 metres per second, while for the nerves of man he and other experimenters found the velocity to vary from 32 to 61 metres in the second.

The experiments of Helmholtz, Helmholtz and Baxt, and others,* were made solely—excepting of course those made on the median nerve of man, which, owing to the impossibility of directly irritating the nerve, and the contradictory results obtained, cannot be considered as conclusive—on the prepared sciatic nerves of frogs, *i.e.*, nerves which, with the gastrocnemii, were separated from the rest of the body. Repeating these, I was, almost without exception, able to confirm the results obtained by Helmholtz. One exception indeed occurred, where, in the beginning of the experiment, an irritation of the plexus of a nerve thus prepared occupied less time to produce a muscular contraction than an irritation of the nerve nearer the muscle, but after the second irritation the opposite result was obtained.

Until the present time no experiments have been published in which the circulation of the blood still continued in the nerve, and no doubt existed as to the correctness in applying the results obtained on the prepared nerve to the normal nerve. The author recently assisted Professor Schiff in a long series of similar experiments on frogs and dogs in whom the circulation in the nerve was not interfered with, and found in the beginning of almost all the experiments the *latent time* to be less when the plexus was irritated than when the nerve was irritated, *i.e.*, an irritation of a portion of the nerve near the centre occupied considerably less time to produce a muscular contraction than an irritation applied to a more peripheral portion of the same nerve.

To explain this paradoxical result the statement of Wundt could be brought forward, that when the strength of the contraction increases the *latent time* diminishes and consequently may even become negative. This objection at first sight seems very plausible, as the author repeatedly found, as did also Budge nearly twenty-five years ago, that the contractions following irritation of motor nerves increase in strength as we pass from the periphery to the centre. But in a series of nearly eighty experiments the author found† that the *latent time* increases and decreases entirely independent of the strength of the contractions, and also that the latter may remain the same while the *latent time* may increase or decrease.

In order to be absolutely certain that this explanation was not true, I made another series of experiments in which alter-

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* Helmholtz, Müller's Archiv, 1850, p. 276.
" " " 1852, p. 199.
Helmholtz, Berl. Monatsber., 1857.
Helmholtz u. Baxt, Berl. Monatsber., 1867 u. 1870.
Wundt, Unters. z. Mechanik d. Nerven u. Nervencentren, 1 Abth., 1871.
Aeby, Fortpflanzungsgeschwindigkeit d. Reizung in d. Muskeln, 1862.

† Arch. de Physique et Histoire naturelle, Avril, 1877.

nately nerve and plexus were irritated, and was able in quite a number of experiments to obtain curves in which the strength of the contractions was the same for both nerve and plexus, yet the *latent time* for the latter was the shorter. A number of times this was also found when the strength of the contraction following irritation of the plexus was much less than that following irritation of the nerve-trunk.

Probably the true explanation of these curious results can be found in the difference, to which I drew attention in a recent number of the *Philadelphia Medical Times*,* between the receiving and conducting powers of the nerves, that the former increases for the *motor* nerve as we proceed from the periphery towards the centre.

For those who are interested in this subject, I append several experiments, in which it will be seen that frequently an irritation of the nerve at the plexus can occupy less time to produce a contraction of muscle than an irritation of a more peripheral portion of the same nerve. The irritations were made by means of the sliding-induction-apparatus of Du-Bois Reymond, and their strength is given in centimetres, o being the full strength.

The time was determined by means of a diapason oscillating one hundred times in a second, and is given in the experiments in the number of oscillations which occurred after an irritation before the muscle commenced to contract,—one oscillation being equal to $\frac{1}{100}''$, two oscillations to $\frac{1}{50}''$, etc.

Experiment 1.

Number of the Irritation.	Strength of the Irritation.		Height of the Contraction.	Latent Time.	Remarks.
	Plexus.	Nerve.			
1	cent.	9 cent.	5.5 mm.	$2\frac{1}{16}$ sc.	N. sciatic. of a Rana temporaria.
2	11.		5.5	$2\frac{1}{16}$	
3		8.5	6.5	$2\frac{3}{4}$	
4	10.5		6.2	$2\frac{5}{8}$	
5		8.	6.9	2	
6	9.5		6.5	$2\frac{1}{4}$	
7	8.		6.6	$1\frac{15}{16}$	
8		7.5	6.6	$2\frac{1}{16}$	
9	7.5		6.6	$1\frac{7}{8}$	
10		6.5	6.6	$2\frac{1}{16}$	
11	6.5		6.6	$2\frac{1}{4}$	
12		5.5	6.5	$2\frac{3}{8}$	
13	5.5		6.5	$2\frac{3}{8}$	
14		4.	6.5	$2\frac{3}{8}$	
15	4.		6.5	$1\frac{15}{16}$	
16		2.5	6.2	2.	
17	2.5		6.5	$1\frac{15}{16}$	

* Since that article was written, I have found that hyoscyamia under certain conditions will abolish the receiving power of the nerves.

Experiment 2.

Number of the Irritation.	Strength of the Irritation.		Height of the Contraction.	Latent Time.	Remarks.
	Plexus.	Nerve.			
1	11 cent.	cent.	4.5 mm.	$1\frac{5}{16}$ osc.	N. sciatic. of a Rana esculenta.
2		10	4.2	$2\frac{3}{4}$	
3	$11\frac{1}{4}$		4.5	$2\frac{1}{8}$	
4	9		4.	$2\frac{1}{2}$	
5		9	4.2	$2\frac{1}{2}$	
6	8		3.9	$3\frac{1}{4}$	
7		8	3.9	$3\frac{1}{8}$	
8	7		3.7	$2\frac{1}{2}$	
9		7	4.6	4.	
10	7		4.3	$1\frac{5}{8}$	
11	6		4.	$3\frac{1}{2}$	
12		6	4.6	$2\frac{1}{2}$	
13	5		4.8	$1\frac{7}{8}$	
14		5	4.6	$2\frac{1}{4}$	
15	4		4.	$2\frac{1}{4}$	
16		4	4.8	2.	
17	3		4.2	$1\frac{1}{16}$	
18		3	4.6	2.	
19	o		4.6	$1\frac{1}{2}$	
20		o	5.	$1\frac{1}{2}$	

When the irritation of the muscle is compared with the irritation of the nerve, the same result—less frequently, it is true—is obtained as will be seen in the two following experiments.

Experiment 3.

Number of the Irritation.	Strength of the Irritation.		Height of the Contraction.	Latent Time.	Remarks.
	Muscle.	Nerve.			
1	8 cent.	cent.	5.2 mm.	$1\frac{1}{16}$ os.	N. sciatic. and M. gastrocnemius of a Rana esculenta.
2		8	5.6	$1\frac{1}{16}$	
3	7		5.6	$2\frac{1}{2}$	
4		5	6.6	$1\frac{1}{2}$	
5	5		6.8	2.	
6		4	6.6	$1\frac{1}{2}$	
7	4		6.8	$1\frac{3}{4}$	
8		3	6.8	$1\frac{1}{4}$	
9	3		6.8	$1\frac{1}{2}$	
10		10	6.4	$1\frac{1}{4}$	
11	10		6.4	$1\frac{3}{4}$	
12		13	5.	$1\frac{5}{16}$	
13	12		6.6	2.	
14		12	2.	$2\frac{1}{2}$	

Experiment 4.

Number of the Irritation.	Strength of the Irritation.		Height of the Contraction.	Latent Time.	Remarks.
	Muscle.	Nerve.			
1	7 cent.	cent.	6.6 mm.	$1\frac{7}{16}$ os.	N. sciatic. and M. gastrocnemius of a Rana temporaria.
2		7	6.8	$1\frac{7}{16}$	
3	8		6.7	$1\frac{15}{16}$	
4		8	6.	$1\frac{15}{16}$	
5	9		6.9	$1\frac{3}{4}$	
6		9	6.5	$1\frac{7}{8}$	
7	10		6.	$1\frac{7}{8}$	
8		10	6.	$1\frac{11}{16}$	
9	11		5.9	$1\frac{11}{16}$	
10		11	6.9	2.	
11	13		0.7	$4\frac{1}{2}$	
12		13	o.	o.	
13		5	6.5	$\frac{3}{4}$	
14	5		6.8	$2\frac{5}{8}$	

Conclusions.—The latent time, *i.e.*, the time which expires after the nerve-trunk

or the nerve in the muscle is irritated, up to the time when the muscle begins to contract, includes the time necessary for the effect of the irritation to be conducted to the fibres of the muscle, plus the time which the nerve or muscle occupies in receiving the irritation.

This latent time for the prepared nerve and muscle is usually greater the farther the irritation is applied from the periphery of the nerve.

For the normal nerve, that is, a nerve in which the circulation of blood still occurs, the latent time is usually shorter the nearer the irritation approaches the plexus, owing probably to a greater receiving-power in the normal motor nerves the nearer one approaches the spinal centres.

PHYSIOLOGICAL LABORATORY OF GENEVA, March, 1877.

TRANSLATIONS.

TREATMENT OF THE GINGIVITIS OF PUERPERAL WOMEN.—Drs. A. and D. Pinard (*Bulletin Général de Thérapeutique*, 1877, p. 157) call attention to this complication of pregnancy, which they assert to be of more frequent occurrence than is generally admitted. The appearences presented in mild cases are as follows. The gums in the neighborhood of the two maxillæ are redder and more congested than in the normal condition; they are tumefied, the interdental free border is exaggerated as to its normal festooned appearance, and covers, in part, each tooth. This condition is more marked about the convex portion of the maxillæ than in the neighborhood of the molars. The least pressure on the tumefied portions provokes hemorrhage. At a stage one degree further advanced, the teeth lose their solidity, can be moved laterally, and sometimes seem to yield to perpendicular pressure; sometimes they are pushed out of their sockets. Mastication under these conditions is, of course, more or less painful, and loss of blood occurs to a greater or less degree. Pain is rarely severe.

The remote cause of this affection is, of course, pregnancy; what the proximate cause may be, however, has not yet been demonstrated with certainty. It usually appears towards the fourth month of pregnancy, sometimes, but rarely, sooner, going away again a month or two subsequent to delivery, especially in women who do not suckle their infants. As to treatment, the authors have used solution of iodine, of glycerole of tannin, and chlorate of potassium, which, though producing good effects, are far from bringing about a rapid cure.

Chromic acid is useful in certain cases, but must be employed with great circumspection.

The following solution of chloral has given good results:

℞ Chloral hydrat.,
Tinct. cochleariæ, āā q. s.—M.

Of course the teeth must be thoroughly cleansed of tartar, etc., before this application is made. x.

DEAFNESS AS A SYMPTOM OF BRIGHT'S DISEASE.—M. Dieulafoy has noted four cases of Bright's disease where deafness has preceded or accompanied the progress of the affection. He suggests œdema of the auditory nerve as a probable cause, and alludes to the analogous condition observed in the optic nerve.—*La France Méd.*, 1877, No. 16. x.

TREATMENT OF SCROFULA.—Dr. Ory (*La France Médicale*, 1877, No. 15) suggests the following mixture in cases where cod-liver oil is not tolerated:

Butter, 10 oz.;
Iodide of potassium, 2 grs.;
Phosphorus, $\frac{1}{16}$ gr.;
Bromide of potassium, 16 grs.;
Chloride of sodium, 45 grs.

To be taken in three days, spread upon bread.

In other cases the following formula containing common salt may be prescribed:

Chloride of sodium,
Tannin, āā 150 grs. (℥iiss);
Confection of roses, 1400 grs. (℥iij).

To be made into 100 pills, one to be taken every two hours for a month. x.

TREATMENT OF DYSENTERY BY NITRATE OF SODIUM (*La France Médicale*, 1877, p. 91; from *Moniteur Thérapeutique*).—Nitrate of sodium in large doses acts as an ordinary saline purgative. Like the salines, also, it constipates if in part absorbed. It is for this reason that it has frequently proved useful in diarrhœa and dysentery. Caspary (*Deutsche Klinik*) recommends it very highly. The dose differs according to the severity of the case. In true dysentery, twenty-five grammes (about ℥vj) may be administered during the twenty-four hours, in divided doses. Should there be any inflammatory complication on the part of the small intestine, the dose should be less,—fifteen to twenty grammes (℥iv ad v).

The medicine should be administered in a mucilaginous mixture, which should be warmed, cold being injurious in dysentery. When the case is a light one, improvement will be noticed within twenty-four hours. In severe cases several days are required to produce a favorable effect. If within forty-eight hours no improvement is observable, and if the dysentery is rectal, the dose should be increased. If, on the other hand, tenesmus having ceased, there still remain symptoms of inflammation in the small intestine, the dose should be reduced to eight or even five grammes. An increased number of stools indicates too large a dose. x.

ACONITIA IN TRIFACIAL NEURALGIA.—Dr. Gubler (*Bulletin Général de Thérapeutique*, 1877, p. 138) has called attention to the advantage which this remedy offers in severe and stubborn cases of trifacial neuralgia. He goes so far as to assert that he does not remember a single case of neuralgia of the fifth pair which has not yielded to aconitia. A patient who had suffered from extremely violent tic douloureux during many years, who had had portions of all the nerve-filaments exsected, and in whom extirpation of the Casserian ganglion had been thought of, gained perfect relief from five milligrammes ($\frac{1}{12}$ gr.) of Hottot's preparation of aconitia, three milligrammes being insufficient. Dr. Gubler mentions other cases of a similar character, and remarks that it is necessary to continue the remedy for a considerable period in order to hope for any permanent relief. x.

INJECTIONS OF QUININE IN GONORRHŒA.—Dr. Roy (*Le Mouvement Méd.*, 1877, p. 133; from *Ind. Med. Gaz.*) recommends injections of quinine in cases of gonorrhœa.

He gives the following formula:

℞ Quiniæ sulph., gr. ij;
Acid. sulph. dil., ♏viij–x;
Aquæ rosæ, f℥j.—M.

This quantity is for two injections. Copaiba is to be administered at the same time internally. It is said that the effects of the injections are quite remarkable; that they mitigate the burning, and cause a notable diminution in the amount of discharge. The treatment is equally adapted for both acute and chronic gonorrhœa, and is also useful in some cases of cystitis. x.

CYANIDE OF ZINC IN RHEUMATISMAL NEURALGIA.—Dr. Luton, of Rheims (*Bull. Gén. de Thérap.*, 1877, p. 97), again calls attention to the value of the cyanides in the treatment of rheumatism. He gives notes of two cases, one of sciatica followed by trifacial neuralgia and delirium, where the remedy was administered according to the following formula:

℞ Zinci cyanid., gr. iii;
Aq. destillatæ, f℥viss;
Mucilag. acaciæ ad f℥iv.—M.

Sig.—Tablespoonful every hour. *Shake well before using.*

The effect produced was surprising. The patient suffered less the first day after commencing treatment, the accompanying fever abated, the pain became tolerable, sleep and appetite returned. Within three days the disease was cured, and did not return. A second case of trifacial neuralgia, accompanied by acute articular rheumatism, fever, cerebral trouble, was cured rapidly by the same means. Dr. Luton gives notes of both of these cases. In the remarks which follow, he takes occasion to complain of the unmerited neglect with which this remedy has been treated by the profession, and complains almost bitterly of the popularity of propylamine and salicylic acid. Against the latter, indeed, Dr. Luton inveighs as a simple disinfectant elevated all at once by blind empiricism to the dignity of an anti-rheumatic remedy. He also considers the cyanide of zinc to have been employed heretofore in too small doses. If three, four, or four and a half grains are necessary to master the disease, let them be given, but in broken doses, so that elimination may proceed *pari passu* with absorption. The cyanides are transient in their effects: they only pass through the organism, like chloroform, chloral, ether, etc. Hence there is no cumulative effect to be dreaded. Reduced rapidly to the condition of hydrocyanic acid, they are exhaled by the respiratory passages. Dr. Luton does not consider three-quarters of a grain of cyanide of potassium or zinc every hour excessive, and asserts that no risk is run in the administration of this dose. He prescribes it either in pill form or in the mixture above given. x.

CASE OF RUPTURE OF THE SPLEEN TERMINATING IN RECOVERY.—The *Berliner Klinische Wochenschr.*, No. 4, 1877, quotes the following case from a St. Petersburg journal. A physician 33 years of age, who had passed through an attack of *typhus exanthematicus*, after the seventeenth day of convalescence was seized with renewed transitory invasions of fever, in the

course of which the spleen became again enlarged to a marked degree. During a severe attack of vomiting resulting from the ingestion of improper food, signs of rupture of the spleen, with internal hemorrhage, became suddenly evident,—severe paroxysms of pain deep in the epigastric region, enlarged percussion-area of dulness, profound collapse. The physical signs of internal hemorrhage continued to become more evident, the collapse was still more profound, the temperature sank to 35.4° (97.7° F.), cyanosis and anuria were observed. Ice-bladders were kept to the abdomen, one grain of opium was administered every three hours, and later subcutaneous injections of camphor with port-wine enemata. During the following days, contrary to expectation, no symptoms of peritonitis appeared, but gradual absorption of the hemorrhagic effusion took place, with improvement of the patient's general condition. Within a fortnight the effusion was entirely absorbed, the splenic enlargement continuing. Examination of the literature of the subject shows only twenty-two previously recorded cases of rupture of the spleen, all of which proved fatal. X.

Transmission of Syphilis in the Process of Tattooing (*Le Progrès Médical*, March 17, 1877).—The following case is reported as occurring in the service of M. Simonet, at the Hôpital du Midi. A boy, æt. 19 years, entered the hospital with the following history. June 12, 1876, he began to have his right forearm tattooed, the punctures necessary for the operation being made with a needle. The coloring-matter was mixed with the saliva of the operator, who also washed away any excess of the color by a rag moistened with his tongue. He was at the time suffering from some trouble about the mouth, which necessitated frequent cauterization with nitrate of silver. Towards the end of August, *i.e.*, two and a half months after the inoculation, the boy noticed three little swellings on the dorsal aspect of his forearm, two situated just above the radio-carpal articulation, and the third a little higher. They were from the first covered over with scabs, but as he removed these at various times the ulcers underneath would discharge small quantities of pus.

At this time he dressed the chancres with poultices, and under this treatment they rapidly extended. A painless, indurated swelling of one or more axillary glands now took place. The patient was then put on mercurial treatment, and two months after their appearance the chancres had cicatrized.

In January, 1877, he presented himself at the Hôpital du Midi with mucous patches on the side of the tongue, the lips, the pillars of the fauces, the prepuce, and the scrotum. There were some crusts on the scalp, an indurated gland in each groin, and swollen, indolent axillary, cervical, and submaxillary glands. The supra-trochlear glands were not involved. He was placed on about the eighth of a grain of corrosive sublimate daily, the mucous patches were touched with nitrate of silver, and he speedily recovered.

This case has seemed worthy of record for several reasons: 1. The peculiarity of the mode of infection, which has not been noted by any author, in spite of the number of people who are tattooed. 2. The transmission of the syphilitic virus through the medium of the saliva,—though it probably proceeded from mucous patches. 3. The long period of inoculation, which resembles that of chancres made intentionally by inoculation. It is suggested that this may be due in extra-genital sores to the fact that the lymphatics are less numerous. 4. The slow cicatrization of the primitive sores, although chancres of the superior extremities usually heal very rapidly. J. W. W.

Syphilis by Conception (*Le Progrès Médical*).—M. Diday, at a recent meeting of the French Society for the Advancement of Science, read a memoir on the transmission of syphilis by conception. He applies the term to those cases of syphilis which, he says, occur in a previously healthy mother through inoculation by a fœtus which has been rendered syphilitic by the father. It has been asserted by some authors that such cases did not occur,—that the woman was always infected directly by the man, and that the initial lesion has escaped notice. From twenty observations made by M. Diday, he concludes that this is not true, that the infection is indirect or occurs through the medium of the fœtus, and that no chancre appears; in other words, a man may infect a woman not only as a husband but as a father. He recognizes, however, that these facts, although indisputable according to him, are rare, and that many women who bear children to syphilitic fathers escape contagion altogether. J. W. W.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, APRIL 28, 1877.

EDITORIAL.

PRESCRIBING BY WEIGHT.

SOLOMON, if he had lived in these latter times and attempted to keep pace with science, would with double emphasis have written, "All is vanity and vexation of spirit." Look at our modern doctor. With a chemical science that he had been taught was definite and fixed, swept into a seeming chaos of univalents, bivalents, monads, triads, pentads, amides, and similar new births; with weights and measures tumbling about his ears; with tubercle and cancer bowed out by catarrhal pneumonia, sarcoma, and other new-fangled terms; with the old therapeutic ways laughed at by the enthusiasts of the physiological method,—no wonder that he is tempted to close his ears, shrug his shoulders, and go on with his work, saying, as did a nanny-goat, we knew of, at the open window during prayer-time, Bah! to the delectation of a parcel of unruly and unwilling boys, who more than half suspected paterfamilias to be more gifted in prayer than in Christian works. But now there is a proposition which comes so close to every-day life and is so gaining favor that it cannot be escaped from, and must arouse the most lethargic routinist. It is that all prescribing shall be by weight, the metric or French system being used.

At some periods propositions like this are not startling; but at the present juncture they gain interest from the fact that a revision of the Pharmacopœia is at hand, so that an attempt to enforce them practically is not only possible, but imminent. In the abstract, the use of weights in preference to measures in all pharmaceutical processes is commendable. Vessels of measurement are of uncertain size and vary with temperature. Weights are accurately determined and do not vary with the heat. The difference in accuracy between the two methods is, however, so slight that in practical life it may usually be disregarded. To the analytical chemist the variance in ordinary measures is appalling; to the dispenser of molasses it is inappreciable. In other words, the accuracy of work required in scientific investigations is of no value in the every-day transactions of life. The question to be determined is, Do the operations of pharmacy require the accuracy of chemical manipulations, or do they belong rather to the category of molasses-measuring?

The subject naturally has two aspects, one the making, and the other the dispensing, of the preparation. It is proper to consider these separately, since it is possible for the use of weights in standard processes to be most convenient, although the employment of measures may be best in dispensing. In regard to preparing drugs, but little inconvenience apparently would result from the substitution of weights, whilst in some instances the increased accuracy might be advantageous. In the great majority of cases, however, such increase would be of no importance. Thus, in the tinctures of the bitters, of what injury would an error of a few drachms in the gallon of menstruum be? Even in the narcotic preparations the effect of a variance of ten per cent. would have no perceptible influence. Can any therapeutist distinguish between the effect of nine and of ten drops of the tincture of belladonna? Now, there is no excuse for a variance of more than the half of ten per cent. in the use of ordinary measures. The gain in accuracy seems to us, therefore, scarcely worth fighting for; and if the weights are to be given in a new system, we protest! In our opinion, any such attempt in the new Pharmacopœia would render it a failure. Another method has been proposed,

namely, that formulæ should be stated by parts in weight, each ingredient so many parts, the pharmaceutist being left to select what weights he pleases. This plan is worthy of the little effort required to introduce it, not only from its intrinsic qualities of simplicity and accuracy, but also from the fact that it is a step towards a most desirable goal, *i.e.*, an International Pharmacopœia. Suppose the change were made in both the English and the American Pharmacopœia, how easy it would be to similate the two standards! The difference in the weights and measures now stands as a barrier of division, like differences of language between two nations. If a common formula in parts were agreed on, the pharmacist would get the standard results whatever system of weights he might employ, or even if he used simple uniform pieces of lead and eschewed legal weights altogether. It is further evident that such a reform would require no increase of knowledge, no forgetting of old and learning of new systems by the gray-haired druggist, whilst it would allow the pharmaceutical fledgling to kick his heels as high as he pleased in the most recent clearing of progressive science. These things being so, we are among those who believe that in the new Pharmacopœia the formulæ should be by parts in weight.

The question of the method to be used in prescribing is, as already stated, essentially distinct and diverse from that just discussed. The only gain to be secured in this case is increased accuracy. It is scarcely necessary to reiterate the arguments already gone through in regard to the value of excessive exactness. What has been said about preparing remedies applies with increased force to the prescribing of them. Not only are there here no secondary good results of moment to be achieved, but the obstacles which lie in the way of introducing the proposed reform seem to be almost insuperable.

Chiefest among these difficulties is the fact that fluid medicines cannot be administered by weight,—that the teaspoon, dessert-spoon, tablespoon, wineglass, or the more exact fluid measures of the modern graduated glass cannot be banished from the sick-room. Now, it is illogical to prescribe by weight and administer by measure. Further, it is practically impossible for any ordinary physician to learn the weights of the innumerable mixtures he makes: having written a formula by weight, he must therefore adjourn to the apothecary-shop to know what the dose is, and then report to the patient.

Mr. Alfred B. Taylor meets this objection by suggesting that the quantities of the active medicine in a magistral recipe be given by weight, and that the prescriber order to be added of the menstruum q. s. to make the desired quantity. It will be noticed that this is not prescribing by weight, but by measure and weight both, which is precisely what is done at present, the difference being that now for his convenience the prescriber uses the measures more freely than he would under the proposed system. We fail entirely to perceive any gain in the change, and we do see an endless amount of unnecessary and useless work for the physician. If the proposed changes were rendered imperative, not only would the veterans of the profession have to learn a new list of doses, but medical students would have to acquire a double set of doses for all the stronger liquid preparations.

It may be that for their sins the doctors are to be set at this herculean task, so that, having endured a purgatory of useless labor here below, they may enjoy a future fruition.

To aid the old doctor, "universally current and cheaply accessible tables" are to be prepared, and it is believed that by proper effort he will soon learn exactly how much in fractions of a gramme corresponds to twenty drops of tincture of nux vomica, a drachm of fluid extract of buchu, a half-

ounce of compound tincture of gentian, and so on from Alpha to Omega. It is plain what a beneficial moral effect this will have upon the physician, rendering him most fit to sympathize with those upon whom presses heavily the burden of life, and exalting him into a heaven of thankfulness when his own task is completed.

It is notorious that the American student has many unoccupied hours in the ten to twenty months he devotes to acquiring his profession, hours which exemplify the old proverb, "Satan finds some mischief still for idle hands to do." For his own good he is to spend these hours in learning double doses, that he may tell Mary to give fifteen drops of that, or a teaspoonful of this, and write to the druggist for so many decigrammes or grammes. Verily, if he flee profanity, the devil will find no idle hours in his life, and personal purity will be a gainer.

As theologians and moral lovers of our kind, we are greatly interested in this project, although we fear that the general profession will side with the nanny-goat and say, Bah! Indeed, if we dared, we would confess to a secret satisfaction that the United States Pharmacopœia does not invade the sacred domain of prescription-writing, and that there is no power having authority to order us to enter this new Canaan to possess it.

We reprint (Notes and Queries) the editorial of the last number of the *New York Medical Record* to show the strength of the best that can be said in reply to the objections urged against the proposition of Dr. Squibb. Either Dr. Shrady or ourselves have misunderstood Dr. H. C. Wood, as we thought he objected, not to Dr. Squibb, but to the power being centred in one man, even though that man were Dr. Squibb.

The charge of duplicity and dishonesty on the part of Drs. George B. Wood, Bache, Carson, etc., we leave to the profession; but we would call attention to the low state into which the practice of pharmacy is alleged to have fallen in Dr. Shrady's field of observation (New York), on account of its bearings upon the selection of the head-quarters of the next committee of revision.

CORRESPONDENCE.

New York, April 14, 1877.

To the Editor of the Phila. Medical Times:

Dear Sir,—For a considerable time past the medical profession of this city has rejoiced in the possession of two societies for the promotion of the study of the nervous system and its diseases, known respectively as the New York Society of Neurology and the New York Neurological Society. These associations, as might be expected, were active rivals, and it has always been the aim of each to try to throw the other in the shade. There was, of course, not the slightest necessity for having two societies of this nature, and now at last the one first mentioned has been obliged to succumb, or at least to suspend its meetings indefinitely.

As a consequence, there is great rejoicing in the "Neurological Society," and its members hope to get many of the best men from the other camp into their own ranks. At the last meeting the annual election of officers was held, and on this occasion Dr. E. C. Seguin, who has long been a prominent member of the Society of Neurology, was chosen President. The other officers elected were as follows: First Vice-President, Dr. Eugene Dupuy; Second Vice-President, Dr. Edw. Spitzka; Treasurer, Dr. —— Harwood; and Secretary, Dr. George W. Wells.

At this meeting, a paper on "*Katatonia*," a new form of insanity, first described by Kaulbaum, was read by Dr. James C. Kiernan, of the New York City Asylum for the Insane, Ward's Island. The disease is mainly characterized by peculiar rhythmic movements, theatrical declamation, and, at times, a cataleptoid condition. Dr. Kiernan has found that it seems to have some peculiar relation to scrofulosis. He has seen thirty cases of it altogether, and regards it as a much less rare affection than its discoverer seems to do.

At the conclusion of this paper, Dr. Montrose A. Pallen, Professor of Gynæcology in the University, read one on *Menstrual Neuroses*. The first case he related was one characterized by convulsions and syncope at the time of the menstrual molimen, which originated suddenly at a time when the patient was completely exhausted from nursing her husband during his last illness, in a hot climate.

Regarding the case as one of cerebral anæmia, and especially of anæmia of the medulla, he administered nitrite of amyl freely by inhalation during the menstrual periods, and with the most happy results. As the heart's action was irregular and the patient debilitated, in the intervals he gave digitalis, manganese, and quinine for a time, and afterwards Routh's chloro-phosphide of arsenic, together with faradization. Free stimulation was also resorted to. With each succeeding return of the catamenia it was necessary to use the nitrite of amyl less and less freely, and after a few months she became entirely well. Since then she has married again, and has never had any return of her trouble. In this case the entire genital apparatus seemed to be perfectly normal in every respect.

The second case was one of paralysis of the right arm, with anæsthesia of the breast on the same side. The paralysis was both of sensation and of motion, though less complete in the latter respect than in the former, and was regarded as reflex by Dr. Pallen, from the antecedents of the case, the lack of constitutional symptoms, and the fact of its coming on during a menstrual period. The uterus and ovaries he found to be intensely congested, much more so than is ordinarily the case at such times. He ordered a brisk purgative, but the congestion still remaining after several days, he had six wet cups applied, by which twelve ounces of blood were withdrawn. In addition, Indian hemp, in full doses, and faradization were employed, and under this treatment motion was soon restored to the arm. The paralysis of sensation, however, persisted until the next menstrual period, when he gave ergot, and it disappeared. Since then the patient has continued well, except that whenever the catamenial flow is at all retarded, some anæsthesia of the breast is apt to return.

The third case was one in which there was temporary suspension of the menses, and pregnancy was suspected. The uterus was hard and retroverted. There seemed to be emphysema at the base of the right lung, and there was also some hemorrhage from the bronchial tubes. After a time, however, there was intense mastodynia, and this was soon followed by a bloody dribbling from the nipple. It then became evident that the case was one of vicarious menstruation, and Dr. Pallen opened one of the engorged veins of the mamma, with the result of giving complete relief to the patient.

The fourth case was one of cerebral hyperæmia, resulting apparently from peripheral pelvic irritation. It was characterized by regularly recurring epistaxis; and, the patient being otherwise in perfect health, Dr. Pallen proposed to withdraw a quantity of blood by leeching the temples. Her friends, however, objecting to this procedure, he bled her pretty freely from the arm, and there was no return of the epistaxis.

The fifth case was one in which there was complete absence of the vagina. When the patient arrived at the age of puberty, there were hemorrhages from the nasal, alveolar, bronchial, and gastric mucous membranes at the time of the menstrual molimen. It was supposed by the gentlemen who saw her previously to Dr. Pallen that there was an imperforate hymen present, and they proposed to make an incision through it. Had such an incision been made it would certainly have entered either the bladder or the rectum. By a careful examination Dr. Pallen was able to ascertain the true nature of the case, and hypogastric palpation showed that the uterus was still undeveloped. After three successive operations and continuous dilatation with glass tubes, he succeeded in forming a very good vagina, in which the menstrual flow always appeared afterwards; but the uterus remained in its undeveloped state.

In conclusion, Dr. Pallen made a few general remarks, in which he stated that he still held to the old view of menstruation, at least so far as to believe that there was always an intimate relation existing between it and ovulation, and said that there was no well-authenticated case on record in which menstruation had occurred with original absence of the ovaries. Where the habit of menstruation had once been thoroughly established, however, it was undoubtedly true that the flow might possibly continue to return regularly even after both ovaries had been removed. He regarded the menstrual function as essentially of neuric origin, and considered the ovaries and uterus as the media through which it manifested itself.

Dr. C. S. Bull has read before the Medical Journal Association a paper on "*The Relation between Chorea and Errors of Refraction of the Eye*," which was written as a reply to that on "Chorea, its Cause and Treatment," read some time ago at the Academy of Medicine by Dr. George T. Stevens, of Albany, and which has evolved so much comment and criticism. In the outset he announced the three following points as essential to the reaching of any definite conclusion as to the relation existing between chorea and errors of refraction.

1. The eyes should be tested both without and with atropia, the latter in order to detect the degree of hypermetropia, when it is present.

2. If the relation is a causal one, the employment of proper glasses alone ought to cure the chorea.

3. The collateral history (as to the existence of a neurotic taint in the family, etc.) ought to be taken into consideration.

He then proceeded to relate, in detail, thirty-one cases of chorea in which he had made careful examinations for errors of refraction. Most of these patients belonged to the poorest class, and some that were ordered glasses were unable to procure them. Of the thirty-

one, fifteen were found to be emmetropic and sixteen hypermetropic, and of the latter, six wore glasses for two and three months, and sometimes longer (all other treatment being in the mean time suspended), but without any appreciable effect on the disease. Nine of the thirty-one patients were of a strumuous diathesis, two were syphilitic, three had Pott's disease, ten had valvular disease of the heart, three were affected with intestinal worms, and all the rest belonged to neurotic families, except one, in whom there seemed to be no apparent cause for the existence of chorea. If error in refraction were considered a cause of chorea, Dr. Bull thought that insufficiency of the recti muscles ought to be regarded even more in this light, as he found it present in every one of the hypermetropic patients and in some of the emmetropic ones. Most of the cases entirely recovered under a course of arsenic usually combined with such tonics as iron and cod-liver oil, but four of them resisted every means of treatment that was employed. The conclusion that Dr. Bull arrived at, then, was that while it is barely possible that errors of refraction may be a predisposing cause of chorea, it is not as yet proved to be anything more than a coincidence in a certain proportion of cases.

Dr. Roosa, on the conclusion of the paper, remarked that he had been struck by two facts during its reading: (1) The curability of the disease (all but four having recovered under treatment), and the special efficacy of arsenic. (2) That, in the condition of life to which Dr. Bull's patients belonged, he was surprised that there should be so small a percentage of hypermetropia. He would have supposed that in about forty out of fifty cases this would have been present. He regarded the paper as very damaging to Dr. Stevens's theory, because it proved conclusively that there was no causal relation between hypermetropia and chorea. He thought from the manner in which the subject had been brought forward by Dr. Stevens that more dignity had been given it than it really deserved, and that it would now be a waste of time to examine any further cases in reference to it. According to Dr. Stevens, hypermetropia must necessarily cause nervous derangement; but he believed that this condition was very much more general than doctors ever imagined.

Dr. Knapp stated that he also had examined a number of cases of chorea with reference to errors of refraction, though not so many as Dr. Bull. He had been unable to discover any causal relation between the two, and had found hypermetropia present in a much smaller proportion of cases than the latter. Some of the German authorities, however, had lately announced that not less than seventy or eighty per cent. of the entire population were hypermetropic during the early part of their lives.

Dr. Noyes remarked that the logic of Dr. Bull's cases was much stronger than that of Dr. Stevens. In the first place, one-half of all those examined had entirely normal refraction, and, again, not a single case in which there was hypermetropia was cured, or even relieved, by the long-continued use of appropriate glasses. This, he thought, settled the case. There might be a coincidence; but there was nothing more. If chorea depended on errors of refraction, it ought to be cured by sulphate of atropia, which causes paralysis of accommodation. Dr. Noyes concluded by relating in detail four cases of his own.

Dr. E. C. Seguin said that in five out of eleven cases of chorea presented at his clinic at the College of Physicians and Surgeons hypermetropia was found by Dr. Bull; these cases not being included in the thirty-one on which the paper of the evening was based. In regard to treatment, he had great faith in arsenic; which, he thought, often cured without the assistance of other tonics. He considered doses of three to six drops of Fowler's solution useless in chorea, and always pushed the drug (in accordance with the practice of Brown-Séquard) until toxical symptoms, such as puffiness about the eyes and derangements of the digestive system, began to manifest themselves. Doses of from twelve to fourteen drops were usually necessary. In his opinion this relation of chorea to errors of refraction was still a matter open for investigation; for it was certainly difficult to get rid of the fact claimed by Dr. Stevens, that his cases recovered by wearing appropriate glasses, without any medication whatever.

Dr. Loring mentioned that he had noticed that in many of Dr. Bull's cases the degree of hypermetropia was very slight, and said that a hypermetropia of one-fiftieth or one-sixtieth was utterly of no value in producing nervous trouble in young children. He was of the opinion that this whole matter would only bring discredit upon the oculists, and that their special department had enough sins to answer for without having chorea also laid to its charge.

Dr. V. P. Gibney, of the Hospital for Ruptured and Crippled, recently read before the County Medical Society a report of nearly one thousand cases of *hip-joint disease*, in which the facts connected with their history showed conclusively that the vast majority of them were of traumatic, and not of strumous, origin.

At the last meeting of the surgical section of the Academy of Medicine, Dr. Sayre made some remarks upon and exhibited his very successful method of treating *rotary-lateral curvature of the spine* by means of suspension by a compound pulley and head-gear, and the application of the plaster-of-Paris jacket. (See current number of *Philadelphia Medical Times*, p. 359.) It seemed to commend itself to all the gentlemen present as decidedly the best plan that has as yet been

devised for the cure or relief of this troublesome deformity; not a word being expressed in opposition to it.

There was a large gathering of the profession at the meeting of the Public Health Association held April 12, when a report favorable to the establishment of provident dispensaries was presented by a committee appointed at the previous meeting, when Mr. Charles Barnard read his paper on the subject. In the discussion which followed there seemed to be but one opinion as to the very great abuses which are now prevalent in our free dispensary system; but the great majority of the medical men present were decidedly opposed to the adoption of the provident plan. The result of the evening's debate was the calling of a general meeting of the managers and medical staffs of the different hospitals and dispensaries of the city, in order to devise some means for the relief of the abuses to which such institutions are now so universally subject. In this connection it may be stated that the recent action of the board of governors of the New York Hospital in exacting monthly payments both from out-door and in-door patients is exciting a great deal of hostile feeling among the profession at large, as it is believed it will have the inevitable tendency to cheapen the rates of medical services, which are already quite sufficiently low in the poorer class of practice.

The new "Baldwin pavilion" of the Women's Hospital has been ready for use for some time now, but has not as yet been occupied (probably for lack of funds to pay for its maintenance). When put into service it will just double the capacity of the institution. The building formerly occupied by the University Medical College has been secured as a permanent home for the Training School for Nurses. The Commissioners of Charity are thinking of converting an "eclectic dispensary" in the neighborhood into a lying-in hospital for street cases of labor; but it would seem to be a much better plan to have this in the same building as the nurses' school.

The affairs of the St. John's Guild are now being investigated,—"after a fashion;" but enough has been developed to show that the treasurer's society and private accounts are hopelessly mixed, and that whatever may be the character of the master of the Guild, its concerns have been managed in a very irregular and reckless manner. It has, of course, accomplished some good, but great harm has also, no doubt, resulted to the community by its indiscriminate charity, which has directly tended to encourage pauperism. If the same vast sums of money, instead of being thus thrown broadcast among the idle and unproductive poor, had been spent in the organization and administration of some regular system of employment, which would have yielded reasonably fair returns, as well as preserved the self-respect of the classes benefited, the results would have been infinitely better than those now shown. It is but just to state, however, that the branch of the Guild devoted to the summer floating hospital for sick children, which is quite distinct from its other work, seems to have been managed with ability and conscientiousness.

It is reported that Mrs. A. T. Stewart is about to present the elegant building erected by her husband as a hotel for working-women to Dr. Hartt for his proposed hospital for chronic diseases. If this is true, it will certainly be a great Godsend to that eminent medical light, in whom, if we are to believe his own statements, all that is noblest and best in the profession is concentrated.

The first quarter of the year 1877 shows a remarkably low death-rate in this city as compared with former years. The whole number of deaths was 6002, which is 1631 less than during the same period in 1876; 1840 less than in 1875; 1550 less than in 1874; 965 less than in 1873; and 1508 less than in 1872. The number of deaths from contagious diseases, as compared with the average for the first quarters of the five years previous, is shown in the following table:

	First quarter of 1877.	Average for first quarters of five years.
Smallpox . .	5	96.
Measles . .	9	92.8
Scarlatina . .	293	262.
Diphtheria . .	226	389.
Whooping-cough	92	140.
Typhus fever .	41	59.

As smallpox has been very prevalent both in Brooklyn and Jersey City, the almost complete immunity from it which New York has enjoyed is no doubt to be attributed, in part at least, to the more efficient vaccination which has been carried on here of late years.

The death of the Rev. Dr. William A. Muhlenberg, the noble founder of St. Luke's Hospital, whose name was associated with the best enterprises of religion and charity, and whose whole long life was full of activity in doing good, has called forth in this community a universal tribute to his beautiful character and a deep feeling of sorrow for his loss.

PERTINAX.

REVIEWS AND BOOK NOTICES.

ESTUDIO SOBRE LA OVARIOTOMIA É HISTEROTOMIA. Relacion de un Caso de Histerotomia operado con buen Exito por el Dr. Wenceslas Hidalgo. Santiago: Jacinto Nuñez, 1877. (A Study of Ovariotomy and Hysterotomy. Account of a Case of Hysterotomy operated on with Good Result by Dr. Wenceslas Hidalgo. Santiago (Chili), 1877.)

This monograph of 108 pages is the offspring of a successful case of hysterotomy, which term

the author uses, not in its most usual signification of Cæsarean section, but as a synonym for excision of the body of the uterus by abdominal section. About half the work is occupied in giving in an elaborate manner the history, statistics, and methods of operating, of the allied operations known as ovariotomy and hysterotomy, which the writer justly says should be considered together, because the surgeon intending to perform the one may unexpectedly find himself confronted with the other.

He seems to be wrong in stating (p. 13) that the first successful extirpation of the uterus was done by Koeberlé, of Strasburg, in 1863, for this is ten years later than the case operated on with success by Burnham of Lowell.

The chief interest of the book, however, centres in the case reported, of which an abstract may be interesting. A woman, aged 32 years, suffered with a uterine cyst (p. 73) involving the body of the uterus and the left ovary. The mass excised, weighing about twenty-six and a half pounds, was found to consist of the left ovary and the body of the uterus, involved in the cystic growth, together with the right ovary. After it was removed the operator saw the cervical canal, and could readily pass a probe from the vagina into the abdominal cavity. The suppuration resulting became so profuse that a drainage-tube was introduced through the posterior cul-de-sac of the vagina; many untoward symptoms occurred, and, worst of all, rupture of the intestine supervened as a complication, and resulted in an artificial anus. Finally, on the 28th of December, 1876, four months after the operation, the patient left the hospital in good health, though the artificial anus remained. An unsuccessful effort had been made to close this opening, but the patient, finding that it gave her very little discomfort, objected to further operation.

In regard to the mortality after extirpation of the uterus, the writer states that statistics show about forty-five per cent. of good results in the operations done between 1863 and 1872. He, himself, has seen in Europe twenty-one cases operated on, of which only three proved unfortunate (p. 17). These statements are certainly much more favorable than the statistics of Storer, which give a mortality of seventy-five per cent.

The first part of the work shows a great deal of research, and a familiar acquaintance with the literature of the subject, which atones for the unnecessarily verbose second part.

J. B. ROBERTS.

TRANSFUSION OF BLOOD, AND ITS PRACTICAL APPLICATION, ETC.

This is a clinical lecture delivered at the Pennsylvania Hospital by Thomas G. Morton, and published in Seguin's "American Clinical Lectures," vol. iii. No. 1.

It is a remarkably concise résumé of the subject of transfusion. First, there is a short history, giving an account of the rise and fall of the operation in professional and public estimation. Its revival in recent times is then spoken of, and the conditions to which it is reasonably applicable are stated in full. Dr. Morton's successful cases have been for losses of blood incident upon or accompanying other diseased conditions: *e.g.*, a case of hemorrhage following the removal of a tumor supposed to be cancerous; two cases of epistaxis occurring in purpura hæmorrhagica; one of bleeding from the mouth and kidneys in typhoid fever, etc.

Post-partum hemorrhages, also, would appear to give most hopeful chances of success.

It will be noticed that, whatever may be the condition, *absolute hemorrhage* appears to be the great fact that precedes the cases of successful transfusion.

Constructive hemorrhages, *i.e.*, anæmic changes arising from disease of whatever kind, appear to offer poor chances for remedy by the transfusion process.

It is curious to know, also, that there is one terrible form of *absolute* hemorrhage, to remedy which it would be theoretically argued that transfusion would be the very thing, but as to which experience seems to establish the contrary. This form is the traumatic, such as that which occurs after severe railroad injuries, gun-shot wounds, amputations, etc. Here it is thought that the element of nervous shock is a large factor against success.

The lecture contains the reports of original experiments upon dogs, both as to the transfusion of blood and as to the effect of the introduction of air into the veins. Dr. Morton characterizes the fear of the latter accident as a bugbear, but at the same time carefully advises and guards against it in his methods of operation.

These methods are detailed in full. Altogether, the lecture is very interesting, and the inducements to try transfusion in certain cases are encouraging.

WM. HUNT.

GLEANINGS FROM EXCHANGES.

SPIRITS OF TURPENTINE FOR TAPE-WORM (*The Medical Examiner*, January 25, 1877).—At a recent meeting of the Medical Society of London, Dr. Leared detailed the case of a gentleman to whom he administered, with proper precaution as to previous fasting, kamala ʒii, followed speedily by the same dose of the drug. Although a large mass of tape-worm was expelled, a proglottis was discovered in the fæces after an interval of seven weeks and four days. One drachm of liquid extract of male fern was now given, succeeded by the same dose. As in the case of the kamala, much of the worm was again expelled, and it was hoped that a cure had been effected.

Twelve weeks and two days subsequently the patient nevertheless again observed that he passed portions of worms. A drachm and a half of extract of male fern, together with a drachm of tincture of kamala, was next given, and repeated as before, and with the same result. These doses were succeeded after the interval of a week by two others, each composed as follows:—ext. filicis liq., ℥ii; pulv. kamalæ, ℥i; mucil. acaciæ, ℥ss; infus. koossoo, ℥ii: ft. haust. Seven weeks and three days after the last expulsion, proglottides were again observed. Three drachms of spirits of turpentine were now given after the usual fast. This dose caused the expulsion of the entire worm. Examination of the head proved it to be that of tænia medio-canellata, which is far more difficult of removal than tænia solium.

THE COMPOSITION OF EWE'S MILK (*The British Medical Journal*, February 3, 1877).—At a recent meeting of the North British Branch of the Pharmaceutical Society, Dr. Stevenson Macadam read a paper on "The Composition of Ewe's Milk." Having had occasion to observe the extreme richness of ewe's milk, as compared with that of the cow, or even of the goat, the author had arranged for a series of trials of the composition of ewe's milk yielded by animals fed solely on good natural pasture, and on the same animals after having fed on extra diet, including linseed-cake, cotton-cake, and oats. The results of these experiments showed that ewe's milk was very much richer than cow's or goat's milk. Thus, taking the total percentage of solids by weight in the milk, the average results were as follows: town dairy cow's milk, 12.27; country dairy cow's milk, 12.77; goat's milk, 13 43; ewe's milk on natural pasture, 18.75; and ewe's milk on natural pasture with the addition of feeding stuffs, 20.11. Again, taking the fat in the solids, the town dairy cow's milk gave 2.58; the country dairy cow's milk, 2.88; goat's milk, 4.31; ewe's milk in natural pasture, 6.77; and ewe's milk with extra feeding, 8.27. The general results of these experiments proved, first, that the better feeding of the ewes yielded richer milk, though the gain was not very great, owing, doubtless, to the good natural pasture; and, second, that the ewe's milk, taken under any circumstances of feeding, was of much richer quality than cow's or goat's milk.

THE TREATMENT OF ROTARY-LATERAL CURVATURE OF THE SPINE (*The Medical Record*, March 31, 1877).—Dr. Lewis A. Sayre, after calling attention to the mechanism of lateral curvature, and the fact that the rotary motion of the vertebræ is confined to their anterior surfaces, recommends very strongly the removal of the superincumbent weight not merely to the posterior part of the bodies of the vertebræ, but to the irregularities of surface upon the entire trunk. He regards this as one of the great essentials for the restoration of the bodies of the vertebræ to their normal position. Unless this is done, all springs and braces are unavailing, so far as radical cure is concerned. Not only that, but they are to be regarded as injurious, even as a temporary treatment: first, because, as a rule, they are not worn with any sort of comfort; and second, they multiply the curves without straightening the column. The instant the spinal column can be made straight, that instant the rotary-lateral curvature is removed. For the milder cases, those in which there is simply a deficiency in muscular tonicity, some light elastic support which will serve as a reminder to the patients that by their own will they are to bring the muscles into action, together with a proper course of gymnastics, might, perhaps, effect a radical cure. But when the osseous structure of the spinal column has become involved, all the braces and other instruments which have been devised for the cure of this deformity are of no practical value whatever.

In such cases Dr. Sayre uses the method of self-suspension originally introduced by Dr. Mitchell, of this city, in conjunction with the application of a plaster-of-Paris jacket. He says, "As a substitute for the usual method of suspension by the arms I employ a compound pulley and head-gear such as I have used for a long time while adjusting the plaster-of-Paris jacket in the treatment of Pott's disease. I believe that the superincumbent weight can be much more effectually removed from the bodies of the vertebræ, hence the spinal column much more completely straightened, by causing the patient to raise himself by lifting from the *occiput* and *chin* than by any other method that has been adopted. I therefore attach the pulley, cross-bar, and head-piece to a hook over the patient's head (a tripod with long legs and a hook above is commonly employed), adjust the head-piece so as to draw equally upon the occiput and chin, and then cause him to raise himself by drawing slowly and steadily upon the cord passing over the pulley above. I believe that no harm will come from this method of suspension, providing the hands of the patient are not permitted to come below a level with the forehead. They should be held high over the head, thus calling into action the muscles of the thorax, and obviating undue traction upon the neck."

After a few weeks' trial of this process, the plaster jacket should be used, but the patient should be required to practise self-suspension the same as before, and as soon as the straightening of the spine becomes sufficient to render the jacket loose, it should be removed and another applied. Dr. Sayre claims the following advantages for this method:

First. It affords a means of treatment which is within the reach of every intelligent practitioner.

Second. It affords the best means for keeping the superincumbent weight from the

bodies of the vertebræ after such weight has been removed by suspending the patient either from the axillæ, occiput, and chin, or from the occiput and chin aided by the thoracic muscles acting through the arms.

Third. It could be worn without discomfort if properly adjusted.

MISCELLANY.

PROFESSOR PATRUBAN recently exhibited to the Medical Society of Vienna a case in which he had succeeded in curing a *chorea* of the *sterno-mastoid* muscle.

After having divided the whole muscle, the contractions, which previously took place every half-minute, ceased. In connection with these communications Professor Weinlechner stated that he also considered ligature of the common carotid advisable in cases of neuralgia which resisted other remedies, especially when hyperæmic symptoms are present. Professor Weinlechner also mentioned that he had completely cured a case of chorea of the sterno-cleido-mastoid and trapezius of the same side by resection of the external branch of the recurrent nerve of Willis, 1½ cm. above its entrance into the muscles.

Professor Patruban related six additional cases in which he had performed *ligature of the common carotid*, on account of *facial neuralgia*, and he concluded that this operation, performed by a dexterous surgeon, would never be dangerous; in some cases it would result in permanent relief, in other cases it would produce an improvement for a certain time. The operation, however, should never be performed when atheromatous degeneration of the vessels was present, because there was danger of hemorrhage occurring. Professor Patruban had lost only one patient after this operation.

AT Carlisle, England, on the 22d of February, 1877, Mrs. Kirkbride, aged 41, of superior education, the widow for twelve years of a much-respected man, and the only child of well-to-do and respected parents, and the mother of two well-doing young men, who are referred to as not having both been *much* separated from her, was charged before Mr. Justice Manisty with having had concealed for some years the dead bodies of six children.

Mr. Baron Huddleston was supported by Mr. Justice Manisty; both had read the depositions, and both suspected the prisoner to have been guilty of far more than the mere concealment, and, in proof, they pointed to the evidence of strangulation in two cases, and of throat-cutting or decapitation in a third; and Baron Huddleston assured the grand jury that if, *after investigation* of the evidence, they concluded that the case was one "of a more serious character than what the prisoner stood charged with, then any intimation to that effect would be received with respect by those who had the conduct of the prosecution." The medical evidence was, however, inadequate.

The lungs alone are depended on in proof of a newly-born, but now dead, child having ever breathed. The lungs had perished in the "mummification." There are, however, other organs, much less perishable than the lungs, which, *even in a mummy*, may be appealed to for the foundation of a *clearly infallible opinion* (see Carpenter's "Human Physiology," 4th edition, page 1036; Harrison's "Dublin Dissector," 5th edition, vol. ii. page 440; Knox's "Human Anatomy," A. P., 1853, page 319, or any other reliable book); and who can deny that "mummified" bodies *might* not supply "evidence of having breathed"?—*Robert Elliott, M.D.*, in *London Medical Examiner.*

THE Managers of the Women's Christian Temperance Union of Philadelphia have established a Home for the reformation of respectable women of the upper and middle classes who are addicted to the habit of drink. It is desirable that those obtaining admission to the Home will remain for not less than three months under the care of the resident physician, Dr. Arminta V. Scott, who makes an especial study of these cases. The managers endeavor to lead the patients to a conviction of the truth that a thorough reform can alone be effected by reliance upon a higher power than their own will. Applications may be made at the Home, No. 220 North Thirteenth Street, Philadelphia. Miss Sarah Cadbury, *President*, 1530 Cherry Street; Mrs. H. M. Tioth, *Secretary*, 2018 Race Street.

HOW RICE IS COOKED IN JAPAN.—F. B. Thurber, of New York, writing from Japan to the *American Grocer*, states that the Japanese cook rice as follows: just enough cold water is poured on to prevent the rice from burning at the bottom of the pot, which has a close-fitting cover, and, with a moderate fire, the rice is steamed rather than boiled until it is nearly done; then the cover is taken off, the surplus steam and moisture allowed to escape, and the rice turns out a mass of snow-white kernels, each separate from the other, and as much superior to the soggy mass we usually get in the United States as a fine mealy potato is superior to the water-soaked article.

ACCORDING to the Mayor's Report, the total number of deaths from *yellow fever* in *Savannah* last summer amounted to 1066. Dr. Duncan, health officer, puts the percentage of mortality—whites, 9.54; colored 1.06: in each case about twice as many males as females dying. The cause of the epidemic is deemed uncertain, but the first case was recognized, and the surrounding locality for several blocks distant disinfected "with lime and carbolic acid." The Chinese would have fought the epidemic with tom-toms, gongs, and fire-crackers in infernal discord; and we are not sure but that they would have had as much chance

of scaring it off as had our countrymen with lime and carbolic acid. It speaks volumes of praise for the police of Savannah that they were unflinching, although 77 per cent. of the force had the fever and 12 per cent. died.

ACCORDING to the London *Lancet*, there is in England a very decided reaction in favor of the rod as a cerebral stimulant to masculine youths. Perhaps, after all, Knickerbocker was a physiologist as well as a philosopher when he called attention to the vital connection between the seat of honor and the seat of learning.

HANDSEL GRIFFITHS has seen violent *post-partum hemorrhages* at once arrested in two cases by spraying the genitals, front and back, with ether.

BY a vote of 14 to 8, the Senate of the University of London has decided to bestow medical degrees on women.

NOTES AND QUERIES.

THE PROSPECTIVE PHARMACOPŒIA.

HAVING in our last stated Dr. Squibb's views, we will to-day consider Dr. H. C. Wood's objections. Dr. W. thinks if Dr. Squibb's plan is carried out that there is great danger of there being two Pharmacopœias, or if not, that the one of the American Medical Association will probably fail to command respect,—*i.e.*, will not be a good one. It is much better, he thinks, to stick to the old plan, and, in arriving at an opinion concerning the present method, we must judge it in a measure by its fruits. "When we look at American pharmacy, which has grown up under the shadow of this system, we find it peerless among nations," says Dr. Wood. Upon this point we most humbly beg to differ. On the contrary, we believe it to be the most scandalous pharmacy in the civilized world. Not one druggist in ten has accurate weights or suitable balances; not one in ten is capable of determining the quality or purity of the drugs he dispenses; not three in ten will prepare the same prescription exactly alike, unless its ingredients be chemical salts. Some druggists prepare their tincture by Troy weight, others prepare theirs by Avoirdupois. When we turn to fluid extracts we find it much worse. Very few apothecaries prepare them at all. They buy them from the wholesale manufacturers, whose principal aims appear to be to undersell their rivals. Each one employs a different process, which he advocates as superior to those employed by others. What, then, is the inevitable result? Naturally very great lack of uniformity in the products of different houses. In fact, we can hardly find two fluid extracts of the same name that are exactly alike in their physical appearances or therapeutical properties. Take the whole line of pills, and the same criticism will apply. These are but a few of the abuses of American pharmacy, and if Dr. Wood points to them with pride as legitimate offsprings of the present pharmacopœial system—and to a certain extent they are—we can but wonder what the next ten or twenty years will bring forth under a continuance of the same system and the fostering care of such an advocate. The Pharmacopœia "is certainly very good," says Dr. Wood, and yet there is not a line in it that will aid the druggist in distinguishing rhubarb from squills, either as regards the crude drugs, or their various preparations,—not a line that will enable him to judge of the imperfections of an officinal product, in the preparation of which he may have inadvertently committed an error. These, moreover, are not the only defects of our Pharmacopœia. Others even more glaring might be mentioned, but space will not at present permit. We may be told, however, that these various omissions are fully compensated for in the Dispensatory. This we admit in a measure to be true. For years the Pharmacopœia has been kept a skeleton, in order that the flesh, blood, and brains of pharmacy could alone be found in the Dispensatory, that its owners might reap great profit thereby. We cannot wonder, then, that the heir-apparent to the Dispensatory desires that this state of affairs shall continue. Nor are we surprised by the disingenuous and sophistical arguments that he brings forward in support of his position.

Dr. Wood thinks that Dr. Squibb has maligned the last committee, and has intimated that "they betrayed their trust, and used their position to place the book where they knew it would not do the most good for the cause."* In this we think that Dr. Squibb is clearly in error; for the committee certainly did place the book where they knew it would "do the most good for the cause" of the Dispensatory.

Dr. Wood's last objection† to the new plan is the fear that Dr. Squibb may be chosen by the American Medical Association as its representative in the proposed Pharmacopœial Council. Upon the propriety or impropriety of such a choice we do not care to offer any suggestions, believing that the individual members of the profession throughout the whole country are abundantly able to decide the question for themselves.

Dr. Wood concludes with the following quotation from Scripture: "Thou shalt not covet thy neighbor's goods." We fail to see the application of this to the matter in hand, unless it be that the Pharmacopœia as well as the Dispensatory belongs to the Drs. Wood, and that vested interests should be left undisturbed, even if the profession and the people of this country are to suffer in consequence.

We trust, therefore, that when the representatives of the profession are in June next called upon to exercise their judgment in deciding this controversy—for such Dr. Wood has made it—that they will carefully consider not only the main question of measures, but the no less important ones of men and motives, and that before deciding they will carefully peruse the pamphlets of which we have given a brief résumé. Dr. Squibb's will be furnished by him upon application, and Dr. Wood's upon the receipt by him of a "three-cent stamp," the postage thereon being one cent.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM APRIL 8, 1877, *TO APRIL* 21, 1877, *INCLUSIVE.*

MAGRUDER, D. L., SURGEON.—Assigned to duty as Attending Surgeon and examiner of recruits at St. Louis, Mo. S. O. 82, A. G. O., April 18, 1877.

ALEXANDER, C. T., SURGEON.—When relieved by Surgeon Magruder, to report to the Commanding General, Department of the Columbia, for assignment to duty. S. O. 82, c. s., A. G. O.

WOODHULL, A. A., SURGEON.—To report to the Commanding General, Military Division of the Pacific and Department of California, for duty in Department of California. S. O. 83, A. G. O., April 19, 1877.

DE GRAW, C. S., ASSISTANT-SURGEON.—Assigned to duty at Oglethorpe Barracks, Savannah, Georgia. S. O. 76, Department of the South, April 19, 1877.

JESSOP, S. S., ASSISTANT-SURGEON.—Assigned to duty at Charleston, S. C. S. O. 75, Department of the South, April 18, 1877.

DE HANNE, J. V., ASSISTANT-SURGEON.—To report to the Commanding General, Department of Texas, for assignment to duty. S. O. 83, c. s., A. G. O.

GIRARD, A. C., ASSISTANT-SURGEON.—To report to the Commanding General, Department of Dakota, for assignment to duty. S. O. 83, c. s., A. G. O.

WOODRUFF, E., ASSISTANT-SURGEON.—To report to the Commanding General, Department of Texas, for assignment to duty. S. O. 83, c. s., A. G. O.

KING, WM. H., ASSISTANT-SURGEON.—To report to the Commanding General, Department of Dakota, for assignment to duty. S. O. 83, c. s., A. G. O.

HAVARD, V., ASSISTANT-SURGEON.—To report in person to the Commanding officer, Fort A. Lincoln, for field duty. S. O. 42, Department of Dakota, April 4, 1877.

TESSON, L. S., ASSISTANT-SURGEON.—Assigned to duty at the post to be established at the mouth of the Little Big Horn River, Montana. S. O. 47, Department of Dakota, April 14, 1877.

GARDNER, E. F., ASSISTANT-SURGEON.—To proceed to Fort A. Lincoln, D. T., for duty with the column under orders for field service. S. O. 45, Department of Dakota, April 10, 1877.

CORBUSIER, W. H., ASSISTANT-SURGEON.—Assigned to duty at Charleston, S. C. S. O. 76, c. s., Department of the South.

PERLEY, H. O., ASSISTANT-SURGEON.—Assigned to duty at Fort Pembina, D. T. S. O. 42, c. s., Department of Dakota.

* Dr. Wood's pamphlet, page 5. † Op. cit., page 11.